

WHAT IS CLAIMED IS:

1. A base transceiver station (BTS) comprising:  
a wireless interface operable to receive information from a mobile unit using a  
wireless link between the wireless interface and the mobile unit;  
5 a processor operable to:  
determine a metric associated with the wireless link; and  
generate a graded packet encoding the information and the metric,  
wherein the metric enables elements of a core packet network to select between  
multiple packets encoding the information; and  
10 a network interface operable to communicate the graded packet to the core  
packet network.
2. The BTS of Claim 1, wherein the processor is further operable to:  
monitor the metric associated with the wireless link;  
15 determine that the metric associated with the wireless link has degraded below  
a predetermined threshold;  
withdraw from a selection group associated with the mobile unit; and  
instruct the wireless interface to discontinue receiving further information  
from the mobile unit.
- 20 3. The BTS of Claim 2, wherein the processor is further operable to  
instruct the wireless interface to discontinue receiving further information by  
instructing the wireless interface to discontinue receiving on a Walsh code/frequency  
combination associated with the mobile unit.
- 25 4. The BTS of Claim 2, wherein the processor is further operable to  
instruct the mobile unit to discontinue receiving communications from the BTS on a  
Walsh code/frequency combination.
- 30 5. The BTS of Claim 2, wherein the selection group comprises a plurality  
of BTSs each receiving information from the mobile unit.

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6. The BTS of Claim 1, wherein the processor is further operable to:  
monitor a metric associated with a second wireless link between the wireless  
interface and a second mobile unit;  
determine that the metric associated with the second wireless link has  
exceeded a predetermined threshold;  
register with a selection group associated with the second mobile unit; and  
instruct the wireless interface to begin receiving information from the second  
mobile unit.

7. The BTS of Claim 1, wherein the metric is a selected one of a signal  
strength, a signal-to-noise ratio, a bit error rate, and a carrier-to-noise ratio.

8. The BTS of Claim 1, wherein the processor is further operable to  
encode an identifier in the graded packet, wherein the identifier enables the elements  
of the core packet network to match the graded packet with other graded packets  
encoding the information.

9. The BTS of Claim 1, wherein the wireless interface is further operable  
to receive the information from the mobile unit as a packet encoding the information.

10. The BTS of Claim 1, wherein the information comprises voice  
information associated with a communications session.

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11. A method for wireless communications comprising:  
receiving information from a mobile unit using a wireless link with the mobile  
unit;

determining a metric associated with the wireless link;

5 generating a graded packet encoding the information and the metric, wherein  
the metric enables elements of a core packet network to select between multiple  
packets encoding the information; and

communicating the graded packet to the core packet network.

10 12. The method of Claim 11, further comprising:

monitoring the metric associated with the wireless link;

determining that the metric for the wireless link has degraded to a  
predetermined threshold;

withdrawing from a selection group associated with the mobile unit; and

15 discontinuing to receive further information from the mobile unit.

13. The method of Claim 12, wherein discontinuing to receive further  
information from the mobile unit comprises discontinuing to receive on a Walsh  
code/frequency combination associated with the mobile unit.

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14. The method of Claim 12, further comprising instructing the mobile  
unit to discontinue receiving communications on a Walsh code/frequency  
combination.

25 15. The method of Claim 12, wherein the selection group comprises a  
plurality of base transceiver stations each receiving information from the mobile unit.

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16. The method of Claim 11, further comprising:  
monitoring a metric associated with a second wireless link with a second  
mobile unit;

5 determining that the metric associated with the second wireless link has  
exceeded a predetermined threshold;  
registering with a selection group associated with the second mobile unit; and  
receiving information from the second mobile unit.

10 17. The method of Claim 11, wherein the metric is a selected one of a  
signal strength, a signal-to-noise ratio, a bit error rate, and a carrier-to-noise ratio.

15 18. The method of Claim 11, further comprising encoding an identifier in  
the graded packet, wherein the identifier enables the elements of the core packet  
network to match the graded packet with other graded packets encoding the  
information.

19. The method of Claim 11, wherein receiving the information from the  
mobile unit comprises receiving a packet from the mobile unit, wherein the packet  
encodes the information.

20 20. The method of Claim 11, wherein the information comprises voice  
information received from a user of the mobile unit.

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21. Wireless communications software operable to:  
receive information from a mobile unit using a wireless link with the mobile  
unit;

determine a metric associated with the wireless link;

5 generate a graded packet encoding the information and the metric, wherein the  
metric enables elements of a core packet network to select between multiple packets  
encoding the information; and

communicate the graded packet to the core packet network.

10 22. The software of Claim 21, further operable to:  
monitor the metric associated with the wireless link;

determine that the metric associated with the wireless link has degraded to a  
predetermined threshold;

withdraw from a selection group associated with the mobile unit; and

15 discontinue to receive further information from the mobile unit.

23. The software of Claim 22, further operable to discontinue to receive  
further information by discontinuing to receive on a Walsh code/frequency  
combination associated with the mobile unit.

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24. The software of Claim 22, further operable to instruct the mobile unit  
to discontinue receiving communications on a Walsh code/frequency combination.

25. The software of Claim 22, wherein the selection group comprises a  
25 plurality of base transceiver stations each receiving information from the mobile unit.

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26. The software of Claim 21, further operable to:  
monitor a metric associated with a second wireless link with a second mobile  
unit;

determine that the metric associated with the second wireless link has  
exceeded a predetermined threshold;

register with a selection group associated with the second mobile unit; and  
receive information from the second mobile unit.

27. The software of Claim 21, wherein the metric is a selected one of a  
signal strength, a signal-to-noise ratio, a bit error rate, and a carrier-to-noise ratio.

28. The software of Claim 21, further operable to encode an identifier in  
the graded packet, wherein the identifier enables the elements of the core packet  
network to match the graded packet with other graded packets encoding the  
information.

29. The software of Claim 21, further operable to receive the information  
from the mobile unit as a packet encoding the information.

30. The software of Claim 21, wherein the information comprises voice  
information received from a user of the mobile unit.

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31. A base transceiver station (BTS) comprising:

means for receiving information from a mobile unit via a wireless link with the mobile unit;

means for determining a metric associated with the wireless link;

5 means for generating a graded packet encoding the information and the metric, wherein the metric enables elements of a core packet network to select between multiple packets encoding the information; and

means for communicating the graded packet to the core packet network.

10 32. The BTS of Claim 31, further comprising:

means for monitoring the metric associated with the wireless link;

means for determining that the metric associated with the wireless link has degraded to a predetermined threshold;

means for withdrawing from a selection group associated with the mobile unit;

15 and

means for discontinuing to receive further information from the mobile unit.

20 33. The BTS of Claim 32, wherein the means for discontinuing to receive further information comprises means for discontinuing to receive on a Walsh code/frequency combination associated with the mobile unit.

34. The BTS of Claim 32, wherein the selection group comprises a plurality of base transceiver stations each receiving information from the mobile unit.

25 35. The BTS of Claim 31, further comprising:

means for monitoring a metric associated with a second wireless link with a second mobile unit;

means for determining that the metric associated with the second wireless link has exceeded a predetermined threshold;

30 means for registering with a selection group associated with the second mobile unit; and

means for receiving information from the second mobile unit.

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36. The BTS of Claim 31, wherein the metric is a selected one of a signal strength, a signal-to-noise ratio, a bit error rate, and a carrier-to-noise ratio.

5 37. The BTS of Claim 31, further comprising means for encoding an identifier in the graded packet, wherein the identifier enables the elements of the core packet network to match the graded packet with other graded packets encoding the information.

10 38. The BTS of Claim 31, wherein the means for receiving the information from the mobile unit comprises means for receiving a packet from the mobile unit, wherein the packet encodes the information.

15 39. The BTS of Claim 31, wherein the information comprises voice information received from a user of the mobile unit.

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